

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 2

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

10. (Amended) The semiconductor component according to claim 34, wherein the radiation emitted by said semiconductor body has a luminescence intensity maximum in a blue spectral region at a wavelength selected from the group consisting of $\lambda = 430$ nm and $\lambda = 450$ nm.

11. (Amended) The semiconductor component according to claim 34, which further comprises an opaque base housing formed with a recess, and wherein said semiconductor body is disposed in said recess of said base housing, and including a covering layer including said luminescence conversion element on said recess.

12. (Amended) The semiconductor component according to claim 34, which further comprises an opaque base housing formed with a recess, and wherein said semiconductor body is disposed in said recess of said base housing, and wherein said recess is at least partially filled with said luminescence conversion element.

13. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element comprises a plurality of layers with mutually different wavelength conversion properties.

14. (Amended) the semiconductor component according to claim 34, wherein said luminescence conversion element includes organic dye molecules in a plastic matrix.

D4
17. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element has at least one inorganic luminescence material selected from the phosphor group.

D5
23. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element is provided with a plurality of mutually different materials selected from the group consisting of organic and inorganic luminescent materials.

24. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element includes dye molecules selected from the group consisting of organic and inorganic dye molecules partly with and partly without a wavelength conversion effect.

25. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element includes light-diffusing particles.

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 3

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

26. (Amended) The semiconductor component according to claim 34, which comprises a transparent encapsulation with light-diffusing particles.

27. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element comprises at least one luminescent 4f-organometallic compound.

28. (Amended) The semiconductor component according to claim 34, wherein said luminescence conversion element includes a luminescent material that is luminescent in a blue region.

29. (Amended) The semiconductor component according to claim 34, which comprises a transparent encapsulation with a luminescent material that is luminescent in a blue region.

30. (Amended) A full-color LED display device, comprising a plurality of the light-radiating semiconductor components of claim 34 arranged in a full-color LED display.

31. (Amended) In an interior lighting of an aircraft cabin, a plurality of the light-radiating semiconductor components according to claim 34.

32. (Amended) In combination with a display device, a plurality of the semiconductor components according to claim 34 disposed to illuminate a display of the display device.

34. (Amended) A white light emitting semiconductor component, comprising:
a semiconductor body emitting electromagnetic radiation during an operation of the semiconductor component, said semiconductor body having a semiconductor layer sequence suitable for emitting blue light;

a first electrical terminal and a second electrical terminal each electrically conductively connected to said semiconductor body; and

a luminescence conversion element disposed directly on said semiconductor body and having a substantially constant thickness, said electromagnetic radiation passing through said element from one side to the other, said luminescence conversion element containing a luminescent material, said luminescence conversion element partially converting the blue light into yellow light, such that the semiconductor component emits white light including the blue light and the yellow light.--

Please add claim 38.

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 4

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

D6 -- 38. The semiconductor component according to claim 34 further comprising
transparent resin above said luminescence conversion element. --

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 9

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

Version with markings to show changes made

In the claims:

Claims 1, 3, 6-9, and 35-37 have been cancelled.

Claims 2, 4, 5, 10-14, 17, 23-32 and 34 have been amended as follows:

--2. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element converts radiation of the first wavelength range into radiation of a plurality of second wavelength ranges from mutually different spectral subregions, such that the semiconductor component emits polychromatic radiation comprising radiation of the first wavelength range and radiation of the plurality of second wavelength ranges.

4. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element is at least one luminescence conversion layer disposed [in a vicinity of] directly on said semiconductor body.

5. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element is included in a luminescence conversion encapsulation enclosing at least a part of said semiconductor body and partial regions of said first and second electrical terminals.

10. (Amended) The semiconductor component according to claim [1] 34, wherein the radiation emitted by said semiconductor body has a luminescence intensity maximum in a blue spectral region at a wavelength selected from the group consisting of $\lambda = 430$ nm and $\lambda = 450$ nm.

11. (Amended) The semiconductor component according to claim [1] 34, which further comprises an opaque base housing formed with a recess, and wherein said semiconductor body is

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 10

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

disposed in said recess of said base housing, and including a covering layer [having a] including said luminescence conversion [layer] element on said recess.

12. (Amended) The semiconductor component according to claim [1] 34, which further comprises an opaque base housing formed with a recess, and wherein said semiconductor body is disposed in said recess of said base housing, and wherein said recess is at least partially filled with said luminescence conversion element.

13. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element comprises a plurality of layers with mutually different wavelength conversion properties.

14. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element includes organic dye molecules in a plastic matrix.

17. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element has at least one inorganic luminescence material selected from the phosphor group.

23. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element is provided with a plurality of mutually different materials selected from the group consisting of organic and inorganic luminescent materials.

24. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element includes dye molecules selected from the group consisting of organic and inorganic dye molecules partly with and partly without a wavelength conversion effect.

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 11

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

25. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element includes light-diffusing particles.

26. (Amended) The semiconductor component according to claim [1] 34, which comprises a transparent encapsulation with light-diffusing particles.

27. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element comprises at least one luminescent 4f-organometallic compound.

28. (Amended) The semiconductor component according to claim [1] 34, wherein said luminescence conversion element includes a luminescent material that is luminescent in a blue region.

29. (Amended) The semiconductor component according to claim [1] 34, which comprises a transparent encapsulation with a luminescent material that is luminescent in a blue region.

30. (Amended) A full-color LED display device, comprising a plurality of the light-radiating semiconductor components of claim [1] 34 arranged in a full-color LED display.

31. (Amended) In an interior lighting of an aircraft cabin, a plurality of the light-radiating semiconductor components according to claim [1] 34.

32. (Amended) In combination with a display device, a plurality of the semiconductor components according to claim [1] 34 disposed to illuminate a display of the display device.

34. (Amended) A white light emitting semiconductor component, comprising:

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 12

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

a semiconductor body emitting electromagnetic radiation during an operation of the semiconductor component, said semiconductor body having a semiconductor layer sequence suitable for emitting blue light;

a first electrical terminal and a second electrical terminal each electrically conductively connected to said semiconductor body; and

a luminescence conversion [layer] element disposed directly on said semiconductor body and having a substantially constant thickness, said electromagnetic radiation passing through said [layer] element from one side to the other, said luminescence conversion [layer] element containing a luminescent material, said luminescence conversion [layer] element partially converting the blue light into yellow light, such that the semiconductor component emits white light including the blue light and the yellow light.--

Applicant : Ulrike Reeh et al.
Serial No. : 09/221,789
Filed : December 28, 1998
Page : 8

Attorney's Docket No.: 12406-
003001 / 1996P1650PUS01

Attached is a marked-up version of the changes being made by the current amendment.
A supplemental information disclosure statement is enclosed.
Applicant asks that all claims be allowed. Please apply any other charges or credits to
Deposit Account No. 06-1050.

Respectfully submitted,

Date: August 24, 2001

William E. Booth
William E. Booth
Reg. No. 28,933

Fish & Richardson P.C.
225 Franklin Street
Boston, Massachusetts 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

20303939.doc